ATTORNEY DOCKET NO.: 68.0360 UTILITY PATENT

WHAT IS CLAIMED IS:

1. An apparatus usable in a subterranean well, comprising:

a valve movable between an open and a closed position to control communication

between an annular region surrounding the valve and an internal bore; and

at least two remotely operated interventionless actuators in operational connection with

the valve;

wherein each of the interventionless actuators may be operated independently to move

the valve between the closed position and open position and further allowing the

valve to be actuated by a mechanical apparatus.

2. The apparatus of claim 1, wherein at least one of the interventionless actuators includes:

a first and a second pressure chamber; and

a rupture disc located between a pressure source and the first pressure chamber.

3. The apparatus of claim 2, wherein the rupture disc is located between the internal bore

and the first pressure chamber.

4. The apparatus of claim 2, wherein the at least one interventionless actuator includes a

power mandrel to change the valve position in response to a fluid flow through the rupture disc

assembly into the first pressure chamber.

5. The apparatus of claim 3, wherein the at least one interventionless actuator includes a power mandrel to change the valve position in response to a fluid flow through the rupture disc assembly into the first pressure chamber.

6. The apparatus of claim 1, wherein at least one of the interventionless actuators changes the valve position in response to pressure in the internal bore.

7. The apparatus of claim 1, wherein at least one of the interventionless actuators changes the valve position in response to a pressure differential between the internal bore and the annular region.

8. The apparatus of claim 6, wherein at least another one of the interventionless actuators changes the valve position in response to a pressure differential between the internal bore and the annular region.

9. The apparatus of claim 1, wherein at least one of the interventionless actuators includes: a housing having a port in communication with the annular region; a power mandrel;

a breakable tension bar in connection between the housing and the power mandrel; and a spring biasing the power mandrel. 10. The apparatus of claim 9, wherein the power mandrel to change the valve position in

response to a pressure differential between the internal bore and the annular region.

11. The apparatus of claim 1, wherein at least two the interventionless actuators change the

valve position in response to pressure in the internal bore.

12. The apparatus of claim 1, wherein at least two the interventionless actuators change the

valve position in response to a pressure differential between the internal bore and the annular

region.

13. The apparatus of claim 2, wherein at least another one of the interventionless actuators

includes:

a housing having a port in communication with the annular region;

a second actuator power mandrel;

a breakable tension bar in connection between the housing and the second actuator power

mandrel; and

a spring biasing the second actuator power mandrel.

14. The apparatus of claim 13, wherein the rupture disc is located between the internal bore

and the first pressure chamber.

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15. The apparatus of claim 14, wherein the at least one interventionless actuator includes a first actuator power mandrel to change the valve position in response to a fluid flow through the rupture disc assembly into the first pressure chamber.

- 16. The apparatus of claim 13, wherein the second actuator power mandrel to change the valve position in response to a pressure differential between the internal bore and the annular region.
- 17. The apparatus of claim 15, wherein the second actuator power mandrel to change the valve position in response to a pressure differential between the internal bore and the annular region.
- 18. An apparatus usable in a subterranean well, comprising:
 - a means of controlling communication between an annular region surrounding the controlling means and an internal bore, said controlling means moveable between an open position and a closed position; and
 - at least two means for remote interventionless actuation of said controlling means to move said controlling means from one position to another;
 - wherein each of the interventionless actuation means may be operated independently from other interventionless actuation means to change the position of the controlling means.

19. The apparatus of claim 18, wherein at least one of the interventionless actuating means changes the valve position in response to pressure in the internal bore.

- 20. The apparatus of claim 18, wherein at least one of the interventionless actuating means changes the valve position in response to a pressure differential between the internal bore and the annular region.
- 21. The apparatus of claim 18, wherein at least one of the interventionless actuating means changes the valve position in response to a signal received by the interventionless actuating means.
- 22. A method of interventionless opening of a downhole valve, the method comprising:

 positioning a valve movable between an open and a closed position to control

 communication between an annular region surrounding the valve and an internal

 bore, the valve in a closed position;

positioning at least two interventionless actuators in operational connection with the valve; and

actuating at least one of the interventionless actuators independent of the other interventionless actuators to open the valve.

23. The method of claim 22, wherein the actuating step includes increasing pressure in the internal bore.

- 24. The method of claim 22, wherein the actuating step is in response to a differential pressure between the internal bore and the annular region.
- 25. The method of claim 22, wherein the actuating step is in response to a signal received by the interventionless actuating means.